DOCUMENT RESUME

ED 089 853 PS 007 150

AUTHOR Garcia, Angela B.; And Others
TITLE Description of a Program to Train Parents to Influence the Development of Question-Asking Skills in their Young Children.
INSTITUTION Arizona Univ., Tucson. Arizona Center for Early Childhood Education.
PUB DATE [72]
NOTE 46p.

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS *Elementary School Students; Intellectual Development; *Mexican Americans; Observational Learning; *Parent Child Relationship; *Parent Education; *Program Descriptions; Questioning Techniques; Reinforcement; Teaching Methods

ABSTRACT

Mexican-American mothers of first grade children participated in an educational program in which they learned to teach their children question-asking behaviors. This particular target behavior was selected because previous research and observation indicated that Mexican-American children asked few, if any questions. It was hypothesized that enhancing the question-asking behavior would possibly help the children succeed in school. The specific parent training program is presented in detail. Question-asking behavior was limited to those questions asked while reading or listening to stories. (SBT)

ED 089853

ARIZONA CENTER
FOR EARLY CHILDHOOD EDUCATION
College of Education
University of Arizona
1515 East First Street
Tucson, Arizona 85719

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DESCRIPTION OF A PROGRAM TO TRAIN PARENTS TO INFLUENCE THE DEVELOPMENT OF QUESTION-ASKING SKILLS IN THEIR YOUNG CHILDREN

By: Angela Garcia
Huntley Hoffman
Ed Lauritsen

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TRAINING PARENTS TO DEVELOP QUESTIONING CHILDREN: A PROGRAM DESCRIPTION

Introduction

The motivation behind the development of most school or curriculum related parent training programs is generally the desire to maximize children's abilities to succeed in school and, thereafter, in the greater society. The following is a description of the procedures employed to train Mexican-American mothers to teach their first grade children certain skills. The rationale for selection of the children's target behavior, that of question asking in general and causal questioning in particular, is presented more extensively elsewhere (Henderson and Garcia, 1972).

While the eventual beneficiary (we hope) of such parent programs is the child, the immediate targets are the parents who pay for what they hope will be benefit for their children with their time, hard work, and, sometimes, the relinquishing of older values. On a personal level, any prolonged contact with parents inevitably engenders deep respect and affection for those who knowingly forgo much for the sake of their children.

On a more public level, current fashion deplores the depreciation of any people's values or mores except perhaps those of the middle-class. Thus, there are those who engage in parent training who maintain that "Society," being rotten, should change and that the "natural" behaviors of parents and children should be left untampered. However, as Helen Bee (1970) has indicated, there are ways that are natural to some groups which might be detrimental to academic development of their children.

Those of us who train parents can not engage in self delusions about not tampering; we must acknowledge that we are, in fact, changing parents

and children, that we believe they would benefit by changing in some way. Any protestations to the contrary may be modish but are useless, irresponsible, and even negligent. As Susan Gray cogently indicates in discussing the ethics of intervention research (1971), while as citizens intervention researchers might wish to change other social or economic institutions in our society, as professionals we can most truly and cautiously serve those with whom we interven by recognizing the boundaries of our competencies and accepting the responsibility incurred by their exercise.

In planning intervention training programs designed to increase a low frequency behavior in any particular group of children, interveners risk generating culture conflict among the trainees. In our case, we clearly believed that children who were skillful question askers would have greater control of their own learning through the use of an additional tool with which to obtain information from their environment. Yet, the evidence, anecdotal and experimental (Rosenthal and Zimmerman, in press), that young Mexican-American children asked few, if any, questions might imply that questioning was not a valued behavior among Mexican-Americans. On the other hand, Mexican-American parents have also expressed the hope that their children succeed in school (Yoshino, et al, 1969; Henderson, 1965).

Realizing that the goal behavior might prove undesirable to some and that certain training procedures (such as the use of contingent verbal praise) might be too foreign or unacceptable to others, we invited 30 mothers of first graders attending a low socioeconomic school to participate in our study. First, we explained our belief in the importance of question-asking in the development of a child's intellectual competence and hence

his school performance. Then, we stated our belief in the crucial role a mother plays in her child's ability to profit from school. Finally, we discussed what procedures we would use during the training program.

Recognizing that some of the procedures we presented and asked the mothers to practice with their children might be well known and used by them while others might be too extreme or alien, we explained this from the beginning and asked the mothers to aid us in assessing the effectiveness of the procedures. Thus, the cooperative nature of the program, with its potential mutual benefits, was delineated: the children would teach their mothers and the researchers which procedures effectively facilitated their question asking while they, in turn, would learn to ask more, and more difficult kinds of questions from their mothers. The mothers would learn from the researchers what intellectual skill to teach their children plus certain procedures by which to teach it. The researchers would learn from the mothers which procedures were most effective in training children.

Since a high level of question-asking on the part of seven youngsters living in a small three room house might readily prove overwhelming to even the most willing and dedicated of parents (especially after a ten-hour day of working in the mines or washing and ironing clothes), we also stressed that our project goal would be to help children ask more questions while reading or looking at story books with their mothers. Generalizing the behavior to other settings was not to be considered during this phase of the program.

The mothers were invited to join a group of four other ladies from the same neighborhood and train for five lessons lasting about one to two hours

in the morning, afternoon or evening, whenever most convenient for the mother. The meetings were held at the University, in a trailer on the school grounds, or at a mother's home. Those mothers meeting outside their homes were transported to and from their homes, and all received $1.50 an hour to cover babysitting and other expenses incurred through participation in the study.

PARENT/CHILD TRAINING PROGRAM: DESCRIPTION OF PROCEDURES

I. Lesson One: Interacting and Counting

II. Lesson Two: Praising

III. Lesson Three: Counting Causal Questions

IV. Lesson Four: Modeling Causal Questions

V. Lesson Five: Modeling and Praising Causal Questions

VI. Lesson Six: Wrap-up and Generalization

The Training Program

The training program consisted of five formal sessions during which each trainee learned to:

I. Discuss children's book with her child following a style of "mother-child" interaction modeled by the trainer. Count and record her child's questions during the interaction sessions with her child.

II. Use praise to reinforce her child's question-asking during these sessions.

III. Differentiate between causal and non-causal questions, and count only causal questions while praising all types of questions.

IV. Model causal questions for the child and count the number of causal questions the child asks.

V. Reinforce (praise) and model causal questions.

Following each lesson the trainee was aked to work at home with her child for at least two sessions of 10 minutes duration each. The length of these sessions could vary from parent to parent; however, each mother was asked to keep constant the initial 10-minute period during which she counted her child's questions to permit accurate recording and the construction of meaningful graphs.

LESSON ONE: Interacting and Counting

I. General Objectives

A. To introduce the mother to the rational behind the study, which is:

1. That parents in the home environment can and do substantially affect how their children learn and what their children learn.
2. That question-asking is an important tool in learning.
3. That parents can teach their children to increase the frequency and influence the type of questions asked.

B. To acquaint the trainee with the overall objectives of the program which are:

1. To apply praise, cuing, and modeling to teach her child to ask more questions.
2. To distinguish the type of questions the mother asks (in this case, causal) and ask, in turn, questions in that category.

II. Behavioral Objectives

A. To learn how to use a simple hand counter to count her child's questions and kepp records of the number of questions asked throughout her work with her child.

B. To distinguish between questions and non-questions while listening to two trainer role playing a mother and child discussing a book.

C. During this role play, to count with the "mother" model the number of questions the "child" model asks. Her score should be within two points of the count kept by the trainers.

D. To play the role of a mother during a mother-child interaction session, counting the number of questions the "child" asks (Mother's score should equal the observing trainer's score $\pm$ 2).

II. Materials and Setting.

A. Group size and physical setting. Each session involved one to five trainees working with two or three trainers. Most of the training took place in a classroom with a large table for whole group activities and areas for the smaller groups of two (one trainee and one trainer) or three (two trainees and one trainer). Training was done in the homes of some of the mothers who could not meet as a group outside their home. With these, only chairs in a somewhat quiet place were needed for the mother and trainer(s).

B. Materials.

1. A large variety of children's books (see Appendix A).
2. A hand counter for each trainee and trainer.
3. A record-keeping booklet for each trainee containing graph paper and recording sheets to enable the non-reading trainee to keep a record of her child's progress (Appendix B).
4. Refreshments.

III. Training Procedure.

A. Introduction to lessons. Throughout the program, one trainer was responsible for presenting most of the material and leading the discussions. The first lesson began with a discussion of the reasons for increasing the number of questions children ask, encouraging the mothers to contribute as many reasons as possible. The trainer explained what would constitute the program and what procedures would be followed during each lesson, say something such as:

> "The most important parts of the program will be learning to use what we call modeling and reinforcement to help the children ask more questions of all types. You will learn to listen to the kinds of questions we (the staff) ask, and you will practice asking the same

kinds of questions

As I explained to you before, there will be five formal lessons during which we will meet as a group for about an hour. During each lesson we will meet around this table and have punch and cookies while we talk about what we have done so far, how the sessions are going at home, and what we'll do that day.

Then two of us will demonstrate what the next sessions with your child should be like. After that you will have a change to try it out here and tell us what you think about it.

B. Identifying questions. The trainer defined what constitutes questions, e. g., "Questions are what you ask when you want to know something. All of us ask questions when we want to know what something is, why it is, where it is, or when it happens." The trainer then gave four or five examples of questions. After the other trainers asked a few sample questions, the trainees were encouraged to ask at least one question. All the trainees were praised or otherwise commended for their examples. Special effort was made to ensure that the verbalizations of the more reticent trainees were reinforced with smiles, eye contact, and praise if these forms of attention were pleasing to them.

C. Counting Questions.

1. Counters. The lead trainer next introduced the counting of questions. Each participant received a simple plastic hand counter. After the mothers randomly clicked their counters for a few moments to accustom themselves to the instrument, the trainer modeled the methods for (1) correctly reading the counter and (2) resetting the counter to zero upon completion of a session.

2. Trainers model model mother-and-child interaction session. Next, two trainers role played a 10 minute mother-and-child inter-

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action session conversing naturally and spontaneously about the pictures in a story book. The lead trainer indicated that the two trainers would demonstrate what the mothers should do with their own child during the first session including how to explain the activity and the counter to the child and explained specifically what each trainer would do in her role, for example:

> "I'm going to take the part of the mother. First I'll explain to my child that we'll be looking at a book, talking about the pictures or anything that interests him. I'll show him how the counter works and tell him that I'll be counting his questions by pressing the button every time he asks a question. Then we'll talk about the book for 10 minutes."

During the 10 minute session, the trainer taking the role of the mother:

a. Timed the sessions for ten minutes

b. Counted the child's questions and marked it down in the record folder at the end of the session.

c. Pointed things out in the pictures and every so often asked the child if he had any questions.

d. Keep the interaction flowing and on topic as naturally as possible.

The trainer taking the role of the child:

a. Was not overly cooperative at first, that is, the "child" may act restless or distracted, thus permiting the "mother" to model reinforcement of attending behaviors on the child's part.

b. Asked enough questions to give parent sufficient practice in counting questions.

c. Did not ask so many questions that the trainee interprets anything less than a voluminous number of questions on the part of her own child as failure.

The mothers were instructed to use their counters to keep a running total of the questions the "child" model asked from the outset of the modeling sessions. A trainer not participating in the role-playing observed the interaction with the mothers and counted questions with them. The sound of the observer's counter acted as a cue for the mothers to follow throughout the role-playing sessions.

Following the modeling sessions, the lead trainer asked for questions and comments from the mothers and stressed that any questions or comments they might have would not only help other trainees who might be too shy to ask, but would aid the trainers in presenting a better and clearer program to other mothers. Following this discussion, the total count obtained by each trainee was checked. If a trainee was having difficulty counting questions, that is, if her count was three points above or below the count obtained by the trainers, the trainer included an additional activity in her instruction.

3. Trainees role-play. The trainer then indicated that the mother would now have a chance to practice what they had just seen demonstrated. The group divided into pairs with one trainer joining each pair. From an assortment of about 50 books displayed at a nearby table, the trainees selected at least two which they thought their child would enjoy and which they could use during their role-playing sessions.

First one of the trainees enacted the role of the mother, the other of the child, for one 10 minute interaction session. Then they would switch roles for a second 10 minute session. The mother figure in each case was responsible for the four behaviors modeled by the mother model (mentioned in part C, 2, a-d). The trainer joining each pair, reviewed the four behaviors for which the mother was responsible, then prompted, praised or otherwise reinforced (nodding in agreement, smiling, patting, or whatever) the trainees for each specific behavior which they performed or approximated successfully. The trainer also counted along with the "mother" since this was a confusing and difficult task at first.

After each role-playing session, the trainer demonstrated the record keeping system modeled earlier by the trainers. This simplified recording method enables even non-readers to keep accurate records, requiring only that the mother match the figure indicated on the counter with the same figure appearing in a column of printed consecutive numbers found in her record book (see Appendix E). Circling the latter number accounted for the tally of questions during a particular interaction.

Upon completion of the role-playing sessions, the trainees and trainers returned to the round table for punch and cookies and for a final discussion of the program. The lead trainer again requested that each mother conduct two 10 minute interaction sessions with her child before the next training session, reiterating the need for keeping the duration of the sessions constant and for entering the count in her record folder. The trainer

indicated that if both the mother and child wished to continue the session beyond 10 minutes this was certainly permissible, provided the mother either stopped counting after 10 minutes or stopped the session for a moment and marked down the total number of questions the child had asked during those first 10 minutes.

IV. Additional Activity for Question Counting.

If a mother failed to get a count within two points of the trainer's she was invited to be the unpaired fifth trainee who worked with a trainer instead of another trainee. Through a casual conversation with the mother about the modeling session, the trainer attempted to ascertain whether the discrepancy in the counting could be attributed to lack of concentration on the mother's part, to lack of understanding of her task, or to the inability to distinguish between questions and non-questions.

In all cases the triner took the role of the mother first. When the problem stemmed from lack of concentration and task understanding, the trainer reviewed the five things a mother must do and gave specific suggestions on how to attend to questions and when to press the counter, e. g.,

> 'It's very eary to get confused when counting questions, especially the first few times you do it. When we first startee counting, we used to get so involved in the book and conversation that we'd forget to count. So we decided to force ourselves to listen especially carefully for the words which told us the child was going to ask a question, words like why, what, who, when, how, where and how come.
>
> We decided that it was best to count the questions immediately, as soon as we heard the word beginning the question. That way we didn't get as confused trying to remember whether we counted the question as the child

> started asking it, after he's asked it or afert we had answered the question! So just remind yourself to press that button as soon as you hear that it's a question, OK?"

In addition to following these procedures, with the mothers whose difficulty stemmed from an inability to distinguish between questions and non-question statements, the trainer also meticulously and clearly labeled most of the comments she uttered to the mother during the first interaction session as being either a question or not.

LESSON TWO: Learning to Praise a Child's Question-Asking

I. General Objectives

A. To increase the mother's awareness and understanding of verbal praise and its effects.

B. To increase the frequency with which the mother praises her child's question-asking.

II. Behavioral Objectives

A. The mother will report verbally what occurred during the two home sessions with her child.

B. She will learning to graph, accurately drawing a graph of the results of the first two sessions with her child.

C. She will give at least one example of verbal praise during the discussion on praise.

D. She will watch and later imitate the trainer modeling a mother praising all the questions asked by the "child" model during the demonstration mother/child interaction sessions.

E. During her own role-playing session, she will count all of the questions the "child" trainee asks. Her count should equal that of the trainer(s) $\pm$ 2.

F. During that same role-playing session she will praise at least 50% of the questions the "child" asks.

III. Materials and Settings

A. Physical setting and group size. Same as Lesson One.

B. Materials

1. Approximately 30-50 children's books.

2. Refreshments

3. Each trainee brings the counter and record folder received during the first lesson.

4. Counters for the trainers to use.

5. Graph paper to demonstrate graphing.

6. Mineographed copies of examples of praise (Appendix C.)

IV. Training Procedure.

A. Review of previous lession. After a brief warm-up conversation with the mother(s), the trainer asked about the results of the sessions each mother had with her child since the first lesson. An examination of the record folder with the mother enabled the trainers to provide corrective feedback to the mothers while assessing the effectivenexx of Lesson One. The predominant difficulties encountered included the use of the counter, the timing of the sessions, and the recording of data in the folders. In general, these difficulties were quickly surmounted and eliminated.

B. Graphing. Graphing was presented as useful in providing a quick picture of the progress a child was making in learning to do something. Employing the hypothetical results of two mother/child interaction sessions, the trainer then drew a graph on a chalk board or a sample folder containing large grid graph paper. Each trainee drew a graph in her own record folder, using the results of her first two sessions with her child. A trainer checked the work of every trainee.

C. Presenting reinforcement, particularly praise.

1. Discussion. The technical labels cues and reinforcement were avoided in favor of "telling children what to do" for cuing and "rewarding", "Helping children to get plesant results", "praising", etc., for reinfrocing.

A series of questions introduced the subject of reinforcement and the conscious use of praise. First the participants

discussed why children might behave as they do and how mothers could help them behave in certain ways. For example:

> "We have been talking about how your girl or boy does a certain thing, that is, how many questions he or she asks under certain conditions. Now, we've decided already that asking questions is important and that we want the children to ask more questions... So, how do we get them to ask us more questions? How do we get children to do anything?

During the ensuing discussion the mothers were encouraged to provide examples of common behaviors which are influence by cues and reinforcement:

> "Sometimes we can get children to do things just by asking them to do it. For example, we can ask them to sit down, to be quiet, to feed the dog, or wash the dishes. Children generally will do what their parents tell them to do. ... (Trainee's provide examples.)
>
> Children will do what they are able to do because they get agreeable or pleasurable results such as the parents attention. For example, a child will make noise in order to get his/her mother to attend to him/her even if she does so by shouting or scolding: some children will clean their rooms, the yard or even be kind to their brothers and sisters for permission to visit a friend or for a trip to the zoo, for a father's praise or a mother's hug. These are all pleasant consequences which influence the child's behaviors.

During the discussion, the trainer encouraged the mothers to contribute examples of (1) behaviors which most six or seven year old children could perform (to demonstrate how motivation alone will result in the desired behavior) and (2) more complex behaviors which a first grader would be unlikely to perform (to indicate that some behaviors require training and shaping before the child can perform them adequately).

Whenever this subject arose, it was stressed that while punishment does work with many behaviors and might be necessary with such

actions such as a child severly hurting himself or another. The use of punishment was outside the preview of this training program and would interfere with present training objectives.

After the discussion of reinforcemtn, ɛuing, and punishment using the examples provided by the mothers, the group considered the procedures which each mother could use during a mother/child interaction session to get her child to ask more questions about the book. The use of praise to increase question-asking was approached with a definition of praise (e.g. Praise is a statement of favorable opinion or judgement. Praising is saying somehow or other that you like something or someone...). We also discussed:

a. How we feel when we receive praise, e. g., for a job well done, for a particular hair style, a dress, a certain dish prepared, etc.

b. The effect praise had on these behaviors: we remembered the praise and worked very hard next time in order to do a good job, we wore the dress or hair style more often and cooked the popular dish more frequently, and so forth.

c. Examples which the trainees could recall of the effect of praise had on some behavior of their children.

The discussion then focused upon the goal of increasing the children's question asking.

What we want to do now is to help the children ask us more questions when we sit down with them for a lesson with a book. We will try to do this by doing several things:

First, we tell them to ask us questions as we leaf through the book.

Second, we let them know that every question they ask pleases us by praising them specifically for every question they ask. Here are some examples of praise which might be helpful.

The trainer destributed a copy of possible praise comments (Appendix C) which the mothers might use to further clarify their concept of praise as well as to minimize the tasks demanded of the mother during the trainee rol playing sessions. After reading and reviewing each example with the trainees, the trainer continued:

> "We have already said that we can help kids ask more questions by telling them to ask us questions and by praising them when they do ask questions. The third thing is something most of us do almost as as a reflex, namely answering the child's questions. Now, once children start asking questions they come up with some beauties which we can't possibly begin to answer unless we're advanced nuclear physicists or some such thing. It's perfectly alright to say to the child, "I don't know the answer, but that's a very good question. We'll have to look for the answer in a book or maybe go to the library for the answer...or perhaps ask someone else who might know."
>
> Many kids learn early in life to be ashamed of not having all the answers and therefore don't ask any questions because asking questions shows that you're dumb. If you show him or her that you're not ashamed to say "I don't know," then asking questions might come more easily...
>
> So now we have three things we can do to help children ask more questions. First, we tell them to ask us questions. Second, we praise their questions. Third,we answer their questions.
>
> The fourth thing we can do is set up the situation by saying certain things or asking them questions that will cause them to ask us a question. We'll domontrate this right now during a mother and child role-playing session...

1. Role playing by trainers. Before the session began the trainer reminded the mothers to count the questions the "child" asked as well as to pay close attention to the four pertinent

behaviors modeled by the "mother" model. As in the first lesson, a non-role-playing trainer counted along with the mothers, providing an additional cue for them to follow.

During the role-playing session, the "mother" model:

a. Timed the session for 10 minutes

b. Counted all of the "child's" questions and indicated that the total should be entered in the record folder at the end of the session.

c. Asked the child for questions at least every other page if failed to ask questions consistently.

d. If the child asked NO questions or practically none, the trainer would "set up" a question. Set Up:

Mother - Asks a difficult question.

Child - Fails to respons with the answer.

Mother - Indicates she knows the answer and will share it if the child asks a question.

Child - Asks question.

Mother - Praises question.

e. Praised all the questions which the child asked.

Example 1:

Mother: Why is the truck balanced at the edge of that cliff?

Child: (Shruggs shoulders or otherwise indicates that he does not know the answer.)

Mother: I know why. (Pause. If child does not answer with a question, Mother continues:) If you ask me, I'll tell you...

Example 2:

Mother: What is the bird who lays square eggs called?

Child: Bird?

Mother: She's a bird all right, and she's also called something else. If you ask me, I'll tell you what it's called.

Child: What's it called?

Mother: Good! You asked that question very well. That bird is called a gillygaloo...

The trainer playing the role of the child:

a. Asked no questions at the beginning of the domonstration session, thus perimitting the "mother" to model question set ups at least five or six times.

b. Acted somewhat restless or distracted, giving the "mother" the opportunity to model reinfrocement of attending behaviors with prasies, smiles, pats on the back, and so forth.

c. Asked enought questions during the last portion of the interaction session to afford the trainee ample practice counting questions.

Following the role playing by the trainers, the participants discussed any questions voiced by the mothers as well as reviewed the counting kept by each trainee. Then, as in Lesson One, they divided into with one trainer joining each pair.

3. Role-playing by trainees. Using new books selected from the book assortment available, each trainee took turns playing the role of the mother and of the child in the 10 minute practice mother/child sessions. As in the previous lesson, the trainer

reviewed the task demands for each role, then prompted, praised and otherwise reinforced whenever necessary.

Learning to praise questions specifically appeared to be an exceedingly alien task for many of the mothers. It thus became necessary to sit besie the "mother" and prompt her to praise questions whenever she failed to do so.

After these practice sessions, the participants discussed the method for entering the counting results in their record folders, reviewed the lesson, and received the assignment of work with each child for two 10 minute sessions during which the mother would count and praise questions.

LESSON THREE: Counting Causal Questions

I. General Objectives

A. To increase the mother's awareness and understanding of the distinction between causal and noncausal questions.

B. To increase the mother's awareness of the importance of causal questions.

II. Behavioral Objectives

A. The mother will verbally report what occurred during the two home sessions with her child.

B She will extend her child's question-asking graph to include the two praise sessions.

C. During a discussion on types of questions, she will give at least one example of a causal question.

D. She will watch and later imitate the trainer modeling praising of all questions and counting of only the causal questions asked by the 'child' model during the demonstration mother/child interacton sessions.

E. The trainer will count all causal and no noncausal questions asked by the 'child' during this demonstration mother/child interaction session.

F. During her own role playing session, she will count only causal questions asked by the "child." The count should equal that of the trainer's $\pm$ 2.

G. ..., she will praise at least 50% of all of the questions the 'child' asks.

III. Materials and Settings

A. Physical setting and group size

Same as Lesson One

B. Materials

Same as Lesson Two

IV. Training Procedure

A. Review of previous lesson

After refreshments and a brief warm-up conversation, the trainer reviewed the previous lesson regarding the importance of questions, and the function of praise. The participants then discussed their experience with their children during the interaction sessions which included praise and extended the graphs begun the previous lesson to include the counts obtained during these sessions.

B. Identifying causal questions

The focus of Lesson Three was identified as counting causal questions, which were defined as questions which begin with "Why," "How Come," "Porque," "Como es que," and "Para que." After providing examples of each kind of causal question, the trainer asked the participants to hazard guesses as to why causal questions were selected for special development. The points covered included:

1. That all kinds of questions were considered important.
2. That selecting one category of question would begin to teach the child to distinguish among different types of questions.

3. That causal questions appear to be more difficult for children to ask. Several studies had shown that some children have difficulty spontaneously imitating that kind of question, therefore direct teaching of imitation of causal questions might be the solution.
4. Causal questions reveal more complex and different kinds of information about the environment and lead to greater awareness of causal relationships.

After discussing these points, the trainer provided some more examples of causal questions, and then asked the participants for examples. Once each trainee had given at least one causal question, the trainer summarized the discussion and enumerated the task demands for the mother and child in the mother/child interaction session.

C. Trainers Role Play

During the demonstration role playing session, the "mother" modeled:

1. Timing the session for ten minutes.
2. Informing the child that only certain types of questions would be counted.
3. Counting only the causal questions all and only causal questions asked by the "child" and indicating at the end of the session that the total should be entered in the record folder.
4. Asking the child for questions at least every other page if he failed to ask any questions consistently.
5. "Setting up questions" if the child asked NO questions or practically none.

6. Praising all of the questions asked by the child.

The trainer taking the role of the child played it as described in Lesson Two, IV, C, 2.

D. Role Playing by trainees

The procedures followed after the trainer's role playing was identical to that of Lesson Two. A brief discussion and review followed their session, succeeded in turn by the practice sessions by the mothers. The accompanying trainer had to be particularly alert at this juncture to insure that the mothers clearly distinguished between causal and noncausal questions and counted only the former.

After the mothers' practice sessions, any questions voiced were discussed, the lesson was reviewed, and the mothers were again reminded to work with each child for two ten minute sessions during which the mothers were to praise all but count only causal questions.

LESSON FOUR: Modeling Causal Questions

I. General Objectives

A. To increase the mother's understanding of the nature of modeling effects.

B. To increase her awareness of the importance of modeling questions with respect to the child's learning to ask different types of questions.

II. Behavioral Objectives

A. The trainee will verbally report what occurred during the two home sessions with her child.

B. She will begin a separate graph entry depicting her child's progress with causal questions.

C. She will watch and later imitate a trainer praising all questions and modeling only causal questions. She will count only the causal questions the child asks during the demonstration mother/child interaction sessions.

D. During her own practice mother/child session, she will count only the causal questions asked by the child. Her total should equal that of the trainer $\pm$ 2.

E. ..., she will praise at least 50% of all the questions the child asks.

F. ..., she will model only causal questions.

III. Materials and Settings

Same as in Lesson Two

IV. Training Procedure

A. Review of the previous lesson.

B. After the usual refreshments and conversation and review of the previous lesson the trainer asked the mothers to relate their experiences with counting causal questions. Since these sessions with the child focused on a new type of behavior, the mothers entered the most recent data on the same graph used previously but were instructed not to connect these last entries with the previous ones since the data represented different information.

C. Introducing Modeling

From the discussion of the counting of causal questions, the trainer proceeded to restate the belief in the importance of asking questions, causal ones in particular. She summed up by stating the goal for the remainder of the training program: to increase the number of causal questions each child asks.

The trainees were then asked to suggest ways in which a child could be helped to ask more causal questions. Of particular interest, of course, were any suggestions which even remotely resembled cuing or modeling. Any mother who came up with either of these was highly praised and her suggestion was used as a natural lead into a description of modeling and its uses in teaching children complex behaviors.

After the introduction and definition of the term modeling, the trainer related examples of how modeling influences the behavior of children, then encouraged the mothers to follow her model and relate any examples which they cared to share.

At the end of this discussion, the trainer summarized the points covered, making certain that each trainee was commended for any contribution to the conversation. She then indicated how modeling would be used to help children ask more causal questions, i.e., through the mother's asking only causal questions during the mother/child interaction sessions.

D. Role Playing by the Trainers

Before the demonstration session the trainer identified the behaviors of the "mother" model upon which the trainees were to focus their attention:

> "We're interested in getting the "child" to ask more "Why" and "How come" questions, so we'll tell him this and say something like, "Do you remember last time we looked at a book together that I counted only some of your questions? This time I'm still interested in those same kind of questions, but now I'm going to be asking you the kind of question I'd like you to ask me. If you listen to my questions, you can learn to ask the kind of questions I'm counting.
>
> After I tell him this, I have to be very careful that I ask only "Why" and "How come" questions because otherwise I'll mix him up.
>
> It's very easy and natural to start asking other kinds of questions, especially the first few times you try it. So what we found helped us was to take the book before we get together with the child and look through it, and think of at least one "Why" or "How come" question for every picture, then it won't be as easy for the wrong kind of question to pop out.
>
> Notice now what we'll be doing in this demonstration session. The mother will (1) still be timing the session for 10 minutes; (2) she'll tell the child that only certain types of questions will be counted; (3) she'll count all and only causal questions asked by the child and enter the total in the record folder at the end of the session; (4) if the child doesn't ask questions consistently, she'll (4) ask him for questions at least every other page or (5) "set-up" questions as we demonstrated last time; (6) she will praise all the questions the child asks; and most important of all, (7) she'll ask

only "Why and "How come" questions to model the kind of questions we want him to learn..."

The trainer taking the role of the child played it as described in Lesson Two, IV, C, 2. The "child' was particularly taciturn during this lesson to permit the "mother' to amply demonstrate setting-up only "Why" and "How come" questions.

Since the demands upon the mothers was especially confusing at this point, most groups had demonstration sessions that spent 10 minutes to enable the trainees to focus on the modeling of causal questions, 10 more minutes demonstrating the setting-up of questions, 10 minutes more demonstrating the entire interplay of skills

E. Role Playing by Trainees

The procedures followed in this part of the lesson differed from those of the previous lesson. Instead of moving directly from the discussion and review of the demonstration sessions to the trainees practice sessions, the trainees selected new books and sat down with a trainer who modeled asking causal questions with the first few pictures in the book, then encouraged the mothers to generate at least one causal question each per page.

After this practice at generating causal questions, the mothers took turns at playing both roles. Again, the length of the sessions remained at the discretion of the trainer, who prolonged any session until the trainees appeared to have mastered the skills involved.

At the end of the practice sessions, the mothers were all

congratulated for mastering some of the most difficult combinations of skills to be demanded in the entire training program. The lesson was revieved and the mothers were reminded to work with each child for at least two 10 minute sessions during which she would model only causal questions.

LESSON FIVE: Training Mothers to Praise and Continue Modeling Causal Questions.

I. General Objectives

A. To familiarize mothers with the advantages of combining modeling with praise as a teaching method which is more potent than either method separately.

B. To increase the frequency with wich the mother models and praises causai quesions.

II. Behavioràl Objectives

A. The mother will graph the results of the two home sessions with her child subsequent to Lesson Four.

B. Each mother will watch and later imitate the techniques of modeling and praising causal questions modeled by a trainer during the demonstration mother/child interaction session.

C. During her own role-playing session the mother will count all causal questions from the child trainee (her count should equal that of the trainer $\pm$ 2).

D. During her own role-playing session, the mother will praise at least 50% of the questions from the "child" trainee.

E. The mother will continue to use a variety of praise when reinforcing questions.

F. During her own role-playing session, the mother will model at least ten causal questions.

III. Materials and Setting.

A. Physical setting and group size. Same as Lesson One

B. Materials

1. Numbers 1, 2, 3, 4, and 6 of Lesson One

IV. Training Procedure

A. Review of Previous Lesson

This review session consisted of three parts. First, the mothers were asked if they had any comments or questions regarding what had been presented during Lesson Four or what had transpired during the home sessions subsequent to that lesson. Such discussion was strongly solicited for establishing rapport, for reviewing previously presented material, and for providing the trainers with the opportunity to reinforce the mothers for verbalizing their learning.

Second, the mothers were asked to record the data from their last two home sessions. If they had already entered the data on their graphs prior to the lesson, the mothers had a trainer check the entries for accuracy. At this time, the trainers were careful to alleviate any apprehension a mother might feel about her child's progress if his data failed to show much improvement. The most anxiety-reducing comment appeared to be the explanation that the child was possibly still learning how to ask causal questions, and that while modeling would help him learn to ask this kind of questions, it probably would not increase the number asked until the mother stopped praising all types of questions and praised only causal ones, which was to be the combination of activities to be presented during this fifth lesson.

This discussion of the function of modeling lead to the third phase of the review, namely, the summation of the Lesson Four presentation on modeling. During this part of Lesson Five the comments made by some of the trainees indicated that they had

forgotten the distinction between causal and non-causal questions. When this occurred, the trainer consciously included many more examples of the two types of questions throughout the lesson and stressed which were acceptable and which were not. Prior to the trainee's practice session(s), the trainer also repeated the causal question generating activity presented during Lesson Four, IV, D.

B. Praising and modeling causal question. The trainer stated again the goal of getting children to ask causal questions and asked for techniques to use to reach that goal. After a brief mention of modeling, the conversation focused upon the effect of praise, covering agin the points presented in Lesson Two, IV, C.

The participants concluded that cuing, modeling, and praising would be used to increase the number of causal questions the children asked. Since the mothers had already learned to praise all questions, they did not need to memorize or compose praise comments with which to reinforce a child's question. However, several of the mothers encountered difficulties in limiting their praise to causal questions alone. To these mothers, the trainers suggested that they focus on just the words with which causal questions begin:

> "It's very hard to limit oneself to praining only "Why" and "How come" questions, especially after praising all questions, especially after praising all questions for such a long time. We found we were having the same trouble and what we finally said to ourselves was that we would listen for the words "Why" and "How come". If a question begins with "Why" or with "How come", then we praise the child for asking it. Do you think that might work for you?
>
> Let's try it and see. Remember, every time you're ready to start a session with your child say to yourself: 'I will praise only questions which begin with "Why" and "How come".

C. Role-playing by the trainers. The trainer taking the role of the mother modeled all the behaviors described in Lesson Four, IV, C, except for number 6. Instead of praising all questions, the "mother" praised only and all causal questions asked by the child.

The trainer taking the role of the child also modeled the behaviors described in section IV, C, of Lesson Four, but consciously asked both causal and non-causal questions to provide the "mother with the opportunity to praise only causal questions.

D. Role-playing by the trainees. After discussing any questions or comments which might have arisen from the demonstration sessions, the trainees took turns being the "mother" or "child" during the practice sessions. The trainer accompanying each pair made sure that each member practiced the behaviors modeled by the trainers by prompting and reinforcing whenever necessary.

Some prompts used and situations requiring them were:

1. For mothers who forgot to count: I forgot to count that last question also. It's so easy to get interested in the story isn't it? But we have to keep reminding ourselves to count. As you saw in the demonstration session, I still have to keep reminding myself not to get too interested or I begin missing questions."
2. For mothers who forgot to count: the trainer pressed the counter hard enough to make a loud noise. Where this was not sufficient, the trainer raised the counter where it would be seen, as well as heard, by the mother.
3. For mothers who forgot to model: the trainer gave the mother a specific causal question which she could ask the child at this

point or said, "Ask her a "Why" or "How come" question whenever you can."

4. For mothers who forgot to praise: "Maybe if you praise her "Why" and "How come" questions, she'll ask more of them." or "That was a good question, wasn't it?...(If the mother fails to take the cue to praise, add:) She'd probably like to hear you say that you thought it was a good question.

LESSON SIX: Review and Wrap-Up

I. General Objectives

A. The mothers relate their opinions, feelings, etc., about the training program, indicating difficulities, joys, or whatever.

B. To review the techniques of cuing, modeling, reinforcement.

C. To discuss other more home typesituations in which these techniques might be used.

D. To visit the public library to obtain cards and book for both parents and child.

E. To suggest ways in which the mothers might generalize their new skills to influence other child behaviors.

II. Procedure

While the mothers were having refreshments and casual conversations the books which they had checked out for training sessions were collected. The trainers then moved the conversation casually to the mother's response to the training program and its demands. After discussing any problems encountered, the trainer asked for suggestions as to how the same techniques of cuing, modeling and reinforcing might be applied in other family situations.

Before departing for the library, a new round of cookies and punch was passed around and the participants toasted to the end of the training, to the mothers, and to each trainer.

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APPENDIX A

List of Children's Books

1. A Happy Day
2. Family Helpers
3. The Crate Train
4. The New Bugle
5. The Orange Scarf
6. The Little Brass Band
7. Amigos! Amigos! Amigos!
8. Jungle Babies
9. The Elephant Book
10. La Nina que Celebra el Cumpleanos
11. What Do I Do?
12. Los Cuatro Sombreros de Benny
13. Community Friends
14. Talking Without Words
15. Goggles
16. Ten Black Dots
17. The Day of the Wind
18. Laugh with Larry
19. Play with Jimmy
20. Play with Jimmy
21. Laugh with Larry
22. A day with Debbie
23. The House in the Tree
24. El Gato Ensombreado
25. Chipmunk's ABC
26. I Live in the City
27. Daddies
28. La senora Jones es mi amiga
29. Families around the World
30. The Cat in the Hat Dictionary
31. The Giant Nursery Book of Things That Go.
32. The Giant Nursery Book of How Things Change
33. Best Word Book Ever
34. Man in the Moon
35. Green Says Go
36. Living with Children #1
37. Living with Children #2
38. Living with Children #3
39. Living with Children #4
40. Living with Children #5
41. Living with Children #6
42. Living with Children #7
43. Living with Children #8
44. Living with Children #9
45. Whistle for Willie
46. The Tiger Who Came to Tea
47. I Know a Baker
48. Weezie Goes to School
49. Mrs. Crumbel and Fire Engine No. 7
50. The First Peko-Neko Bird
51. Cat and Dog

52. Sam and The Impossible Thing
53. Big Red Bus
54. Where is Yonkela?
55. The Green Grass Grows
    all Around
56. The Very Little Boy
57. Sprintime in Noisy Village
58. Where are the Motehrs/
59. The Miracle of the Mountain
60. The Secret Seller
61. The Scroobious Piop
62. This for That
63. Where's Wallace?
64. Circus Ruckus
65. I Play at the Beach
66. Mrs. Poggi's Holiday
67. I Spy
68. The Story of Ferdinand
69. Lady Poole and Mr. Potts
70. Left and Right with Lion
    and Ryan
71. All the Sounds We Hear
72. Where are your Going Today?
73. Two Laughable Lyrics
74. I Should Have Stayed in Bed
75. The Four-Leaf Clover
76. The Lion and the Rat
77. Tikeri
78. The Fish From Japan
79. Sven's Bridge

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APPENDIX B

RECORD KEEPING FORM

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Session 1		Session 2		Session 3		Session 4	
1	26	1	26	1	26	1	26
22	27	2	27	2	27	2	27
3	28	3	28	3	28	3	28
4	29	4	29	4	29	4	29
5	30	5	30	5	30	5	30
6	31	6	31	6	31	6	31
7	32	7	32	7	32	7	32
8	33	8	33	8	33	8	33
9	34	9	34	9	34	9	34
10	35	10	35	10	35	10	35
11	36	11	36	11	36	11	36
12	37	12	37	12	37	12	37
13	38	13	38	13	38	13	38
14	39	14	39	14	39	14	39
15	40	15	40	15	40	15	40
16	41	16	41	16	41	16	41
17	42	17	42	17	42	17	42
18	43	18	43	18	43	18	43
19	44	19	44	19	44	19	44
20	45	20	45	20	45	20	45
21	46	21	46	21	46	21	45
22	47	22	47	22	47	22	47
23	48	23	48	23	48	23	48
24	49	24	49	24	49	24	49
25	50	25	50	25	50	25	50

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APPENDIX C

Examples of Praise

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Comentarios Para Preguntas

Cuando los ninos hacen preguntas, puede responder uno con las siguientes frases:

1. Esa es una buena pregunta.
2. Me gusta mucho esa pregunta!
3. Muy buena pregunta!
4. Me alegra que me hayas preguntado eso.
5. Esa es una pregunta muy interesante.
6. Haz de estar fijandote muy bien para hacer tan buena pregunta.
7. Esa es una buena pregunta. De veras me hace pensar mucho.
8. Que pregunta tan buena! Tendremos que buscar las respuesta.
9. Esa pregunta no dice que de veras estas pensando!
10. Haces tan buenas preguntas!

Things to Say After Questions

1. That's a good question!
2. I like that question!
3. Good Question!
4. I'm glad you asked me that.
5. That's an interesting question.
6. You must be watching very closely to ask such a good question.
7. That's a good question. It really makes me think hard.
8. That question really stumps me! We'll have to look that up.
9. That question shows that you're really thinking!
10. You ask such good questions!

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